

MECHANICALLY ACTUATED
AIRTIGHT DEVICE FOR WAFER CARRIER

ABSTRACT

24 A mechanically actuated airtight device for wafer carrier comprises a cover, at least one sealing gasket, at least one linked plate, and a driving wheel. The cover has a first face and a second face, and being formed with at least one hole therethrough. The sealing gasket is positioned above the hole of said cover, and has a base in a form of wedged ramp, where the base is further formed with a through opening. The linked plate has a first face and a second face, where the second face is at one side provided with a protuberance, and the first face is provided with at least one wedged ramp, and where the wedged ramp has a slope equal to that of the wedged ramp of the base, such that at least one of the wedged ramp of the first face of the linked plate mates with the wedged ramp of the second face of the linked plate. The driving wheel has a first face and a second face, where the first face is provided with a first guiding groove to allow the protuberance of the linked plate move along the first guiding groove. The invention is used as a chassis for a wafer carrier. Thus, when the wafer carrier is closed, it ensures a better airtight effect, and when the wafer carrier is opened so as to break the airtight, a pressure equalizing effect between the inside and outside of the wafer carrier is achieved enhancing removal of the casing of the wafer carrier quickly. Further, the level of the airtight can be adjusted as required.